

IN THE SPECIFICATION:

Please amend the substitute specification as follows. The Substitute Specification was filed on July 2, 2003.

On page 27, please amend paragraph 110 as follows:

-- FIG. 11 is a cross-sectional view showing Embodiment 2 of a photoelectric conversion device according to the present invention. In FIG. 11, the reference numeral 1101 denotes an x-ray source, 1102 an object body to be read out, 1103 a chassis, 1104 a phosphor, 1105 a photoelectric conversion element, 1106 an insulating substrate, 1107 a protective layer, 1108 an LED, and 1109 is a ~~photoconductor~~ light guide plate. --

On page 27, please amend paragraph 111 as follows:

-- The different point from the photoelectric conversion device of the Embodiment 1 illustrated in FIG. 1, is that the ~~photoconductor~~ light guide plate 1109 is installed under the photoelectric conversion substrate (the insulating substrate 1106) and LED 1108 as a second light source provided in the outer casing is arranged on the side face of the ~~photoconductor~~ light guide plate 1109. The material for the ~~photoconductor~~ light guide plate to be used is a transparent material such as acrylic resin, glass or the like whose refractivity is different from that of air. --

On pages 27-28, please amend paragraph 112 as follows:

-- FIG. 11 is a cross-sectional view showing the structure of the photoelectric conversion device, and photoelectric conversion elements are arranged in a two-dimensional state in the depth direction of the sheet face of FIG. 11. The LED is also arranged in a one-dimensional state in the depth direction of the sheet face of FIG. 11. The light rays coming from the side face of the ~~photoconductor~~ light guide plate 1109 proceed to the inside of the ~~photoconductor~~ light guide plate. At that time, the light rays proceeding at an angle more acute than the critical angle determined by the refractivity of the ~~photoconductor~~ light guide plate 1109 and the refractivity of the ambient refractivity are fully reflected in the ~~photoconductor~~ light guide plate interface and further proceed to the inside. On the other hand, the light rays proceeding at an angle more obtuse than the critical angle are partially refracted and led to the photoelectric conversion substrate side. The radiation of the latter light rays at the time of non-reading-out can lower the dark current within a short time. --

On page 28, please amend paragraph 113 as follows:

-- Although the upper face and the lower face of the ~~photoconductor~~ light guide plate 1109 shown in FIG. 11 are drawn like planes, surface roughening processing can improve the diffusion property and the light rays coming out of the photoelectric conversion substrate from the ~~photoconductor~~ light guide plate are increased. The light rays coming out of the insulating substrate side penetrate the side faces of the photoelectric conversion elements 1105, are reflected by the phosphor 1104 faces and reach the

light-receiving faces of photoelectric conversion elements 1105. The photoelectric conversion device of this embodiment is made capable of shortening the waiting time without requiring installation of a second light source such as a large quantity of LEDs and without increasing the power consumption. –

On page 28, please amend paragraph 114 as follows:

-- FIG. 12 is a cross-sectional view showing Embodiment 3 of a photoelectric conversion device according to the present invention. In the figure, the reference numeral 1201 denotes an x-ray source, 1202 an object body to be read out, 1203 a chassis, 1204 a phosphor, 1205 a photoelectric conversion element, 1206 an insulating substrate working also as a ~~photoconductor~~ light guide plate, 1207 a protective layer, and 1208 an LED. –

On page 29, please amend paragraph 115 as follows:

-- In this embodiment, the insulating substrate in which the photoelectric conversion elements 1205 are arranged is used also as a ~~photoconductor~~ light guide plate. The material for the insulating substrate working also as the ~~photoconductor~~ light guide plate 1206 is a transparent material such as acrylic resin, glass or the like whose refractivity is different from that of air. FIG. 12 is a cross-sectional view showing the structure of the photoelectric conversion device and photoelectric conversion elements 1205 are arranged in a two-dimensional state in the depth direction of the sheet face of FIG. 12. As the

second light source installed in the outer casing, the LED 1208 is also arranged in a one-dimensional state in the depth direction of the sheet face of FIG. 12. –

On pages 29-30, please amend paragraph 116 as follows:

-- In FIG. 12, the light rays coming from the side face of the insulating substrate also working as a ~~photoconductor~~ light guide plate 1206 proceed to the inside. At that time, the light rays proceeding at an angle more acute than the critical angle determined by the refractivity of the insulating substrate also working as a ~~photoconductor~~ light guide plate 1206 and the refractivity of the ambient refractivity are fully reflected in the lower face of the insulating substrate also working as a ~~photoconductor~~ light guide plate 1206 and further proceed to the inside. On the other hand, the light rays proceeding at an angle more obtuse than the critical angle are partially refracted and led to the photoelectric conversion substrate side. If the light rays are radiated to the photoelectric conversion element at the time of non-reading-out, the dark current can be lowered within a short time. Although the lower face of the insulating substrate also working as a ~~photoconductor~~ light guide plate 1206 shown in FIG. 12 may be a flat face, if it is surface-roughened, the diffusion property is increased and the light rays coming to the side of the phosphor 1204 from the side of the insulating substrate also working as a ~~photoconductor~~ light guide plate 1206 are increased. The light rays coming to the side of the phosphor 1204 penetrate the side faces of the photoelectric conversion elements 1205, are reflected by the phosphor faces and reach the light-receiving faces of photoelectric conversion elements 1205. On the other hand, in the upper face of the insulating substrate

also working as a ~~photoconductor~~ light guide plate 1206, the light rays coming into collision with the first metal thin film layer of the photoelectric conversion elements 1205 (and the switching elements) are reflected at a high ratio. Also, the light rays coming into collision with the protective layer 1207 other than the first metal thin film layer are reflected or refracted depending on the light proceeding conditions determined by the refractivity of the protective layer 1207 and the refractivity of the insulating substrate also working as a ~~photoconductor~~ light guide plate 1206. –

On page 30, please amend paragraph 117 as follows:

-- The photoelectric conversion device of this embodiment is made capable of shortening the waiting time without requiring installation of the second light sources such as a large quantity of LEDs and without increasing the power consumption. Further, the photoelectric conversion device can be light in weight and compact in size since the insulating substrate is used also as a ~~photoconductor~~ light guide plate. –

On page 30, please amend paragraph 118 as follows:

-- FIG. 13 is a cross-sectional view showing Embodiment 4 of a photoelectric conversion device according to the present invention. In FIG. 13, the reference numeral 1301 denotes an x-ray source, 1302 an object body to be read out, 1303 a chassis, 1304 a phosphor, 1305 a photoelectric conversion element, 1306 an insulating substrate working also as a ~~photoconductor~~ light guide plate, and 1307 a protective layer. –

On pages 30-31, please amend paragraph 119 as follows:

-- In this embodiment, a plurality of light sources are not particularly installed and external light is used in place of a light source in the outer casing. The outer casing is opened when the external light is taken in the ~~photoconductor~~ light guide plate side and closed during the time other than that. The opening and closing may automatically be controlled by a motor. Since no space is required for installation of any light source in the outer casing, the apparatus can be miniaturized. Further, by properly selecting the motor, the electric power consumption can also be reduced. This embodiment is especially effective in the case where the external light quantity is intense. --